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10/607,984	06/30/2003	Kang Soo Seo	1740-000020/US	6983
30593	7590	11/28/2007	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			ZHAO, DAQUAN	
P.O. BOX 8910			ART UNIT	PAPER NUMBER
RESTON, VA 20195			2621	
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			11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/607,984

Applicant(s)

SEO ET AL.

Examiner

Daquan Zhao

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11, 12 and 14-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-12, 14-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Status

Claims 10 and 13 are canceled; claims 20-25 are new.

Response to Arguments

1. Applicant's arguments filed 10/01/2007 have been fully considered but they are not persuasive.
2. Applicant argues, on page 11 of the remark, Kikuchi et al fails to teach "said angle change information corresponding to each of a plurality of video data blocks indicates whether an angle change is permitted and not permitted, and the angle change information indicates where an angle change is permitted and not permitted in the corresponding video data blocks."
3. Kikuchi et al teach, in column 7, lines 5-44, "said angle change information corresponding to each of a plurality of video data blocks indicates whether an angle change is permitted and not permitted, and the angle change information indicates where an angle change is permitted and not permitted in the corresponding video data blocks." "the message" for no angle data and "displaying an angle number" from the angle information corresponds to indicates whether an angle change is permitted and not permitted. "logical block" corresponds to the video data blocks.
4. Applicant's representative argues, in pages 9-10 of the remark, claim 1 is statutory subject matter.
5. MPEP §2106.01(I) further states, regarding *functional* descriptive material, that "a claimed computer-readable medium encoded with a data structure defines structural

and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." Claim 1 does not present any computer and hardware components which permit the data structure's functionality to be realized. Therefore, claim 1 is not statutory subject matter.

Claim Rejections - 35 USC § 112

6. Claims 1-9, 11-12, 14-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 16, 17, 18 and 19 recites "...an angle change is **permitted and not permitted...**" There is no support in the specification for an angle change **is permitted and not permitted**. Applicant moved the original dependent claims 10 and 13 into the original independent claims 1, 16, 17, 18 and 19, wherein the original claims 10 and 13 only has support for "...whether an angle change is permitted", which is "**permitted or not permitted**".

Claims 2-9, 11-12, 14-15, 20-22 and 23-25 are also affected.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9, 11, 12, 14 and 15 are rejected under 35 U.S.C. 101 because claim 1 is directed to a recording medium have a "data structure" of angle change recording information within at least one navigation area. The "data structure" recites in claim 1 does not meet the requirement of the IEEE Standard Dictionary of Electrical and Electronics, which define the "data structure" as a physical or logical relationship among data elements, designed to support specific data manipulation function. Placing the angle change recording information in the navigation area is merely arrangement of data, which is nonfunctional descriptive material. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer."). Such a result would exalt form over substance. In *re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) ("[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under § 101, the claimed invention, as a whole, must be evaluated for what it is.") (quoted with approval in *Abele*, 684 F.2d

at 907, 214 USPQ at 687). See also *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ199, 206 (CCPA 1978) ("form of the claim is often an exercise in drafting"). Thus, nonstatutory music is not a computer component, and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law.

Claims 2-9, 11, 12, 14 and 15 are also affected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4, 5, 7, 8, 11, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikuchi et al (US 5,870,523).

For claim 1, Kikuchi et al teach a computer readable medium (e.g. recording medium-> optical disk in figure 3) having a data structure for managing reproduction of at least multiple reproduction path video data recorded on the computer readable medium (e.g. figure 30, column 19, lines 19-56, multiple angle reproduction of AGL_C_B#1, AGL_C_B#I, AGL_C_B#9), comprising: at least one navigation area storing navigation management information for managing reproduction of the multiple reproduction path video data recorded on the recording medium, said at least one navigation area having angle change recording information corresponding to each of a

plurality of video data blocks (e.g. column 18, lines 44-column 19, line 4, angle change information is in the Playback Control Information data, wherein the PCI is navigation data, also see figures 27-29, and also see figure 25, column 18, lines 5-26 for data structure of the NAV).

Kikuchi et al also teach, in column 7, lines 5-44, "said angle change information corresponding to each of a plurality of video data blocks indicates whether an angle change is permitted and not permitted, and the angle change information indicates where an angle change is permitted and not permitted in the corresponding video data blocks." "the message" for no angle data and "displaying an angle number" from the angle information corresponds to indicates whether an angle change is permitted and not permitted. "logical block" corresponds to the video data blocks.

Claims 16 and 17 are rejected for the same reasons as discussed in claim 1 above.

Claim 18 and 19 are rejected for the same reasons as discussed in claim 1 above with further limitation: a driver for driving an optical reproducing device to record data on the recording medium (e.g. figure 1, disk drive section 30); and a controller (e.g. figure 1, system CPU section 50).

For claim 4, Kikuchi et al teach navigation management information includes a presentation time stamp start point in a video stream to a corresponding one of said plurality of video data blocks (e.g. column 18, line 44- column 19, line 3).

For claim 5, Kikuchi et al teach navigation management information includes source packet identification information for corresponding one of said plurality of video blocks (e.g. column 20, lines 14-23, DSI contains ID for VOB).

For claim 7, Kikuchi et al teach navigation information includes video stream type information for a corresponding one of said plurality of video data blocks (e.g. figure 28, VOBU_CAT in the PCI_GI indicates the category of the VOBU, wherein the PCI_GI is in the PCI as shown in figure 27).

For claim 8, Kikuchi et al teach navigation information includes I-picture offset information pointing to an address of a last I-picture contained in a corresponding one of said plurality of video data blocks (e.g. column 20, lines 14-23).

For claim 11, Kikuchi et al teach angel change recording information corresponding to each of a plurality of video data blocks includes angel change point information (e.g. column 20, lines 35-65).

For claim 14, Kikuchi et al teach multiple reproduction path video data are recorded in the unit of angle block which is referred by angel change recording information (e.g. figure 34, column 19, lines 5-16).

For claims 20 and 23, Kikuchi et al teach the navigation management information includes an entry point map (e.g. figure 29, NSLS_ANGLI has the map for "destination address of Angle cell number", wherein the "destination address corresponds to the "entry point" for the angle cell).

For claims 21 and 24, Kikuchi et al teach navigation management information includes an entry point in a video stream to a corresponding one of said plurality of video data block (figure 20, Angle cell corresponds to video data block).

For claims 22 and 25, Kikuchi et al teach navigation management information includes a presentation time stamp start point in a video stream to a corresponding one of said plurality of video data blocks (e.g. column 18, lines 44-67, SPTS).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 3, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al (US 5,870,523) as applied to claims 1,4, 5, 7, 8, 11, 14, 16, 17, 18,19, 20, 21, 22, 23, 24 and 25 above, and further in view of Tsumagari et al (US 6,556,774 B2).

For claim 2, Kikuchi et al fail to teach the navigation management information includes an entry point map. Tsumagari et al teach the navigation management information includes an entry point map (e.g. column 18, lines 58-60, and column 19, lines 26-67, also see figure 25, the M_C_EPI is considered to be the entry point map). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Tsumagari et al into the teaching of Kikuchi et al to

reduce the data processing time by having the entry point information in the navigation pack since these control information can be extracted all at once.

For claims 3 and 6, Tsumagari et al teach navigation management information includes an entry point in a video stream to a corresponding one of said plurality of video blocks(e.g. column 18, lines 58-60, and column 19, lines 26-67, also see figure 25, the M_C_EPI is considered to be the entry point map).

Claim 9 is rejected for the same reasons as discussed in claims 2 and 3 above.

4. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi et al (US 5,870,523) as applied to claims 1,4, 5, 7, 8, 11, 14, 16, 17, 18,19, 20, 21, 22, 23, 24 and 25 above, and further in view of Sato et al (US 5,884,004).

See teaching of Kikuchi et al above.

For claim 12, Kikuchi et al fail to teach the address of the last interleaved video unit. Sato et al teach the address of the last interleaved video unit (e.g. column 43, line 59- column 54, line 19). It would have been obvious for one ordinary skill in the art at the time the invention was made to incorporate the teaching of Sato et al into the teaching of Kikuchi et al to change the angle scene without reading unnecessary angle information (e.g. column 54, lines 1-19).

For claim 15, Kikuchi et al each reproduction path data are recorded as one or more angle blocks and the angel blocks are interleaved (e.g. column 43, line 59- column 54, line 19).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Okada et al (US 5,905,845); Kaneshige et al (US 6,175,681 B1).

All grounds of rejections are maintained. Accordingly, THIS ACTION IS MADE FINAL. See MPEG § 706.07 (a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136 (a).

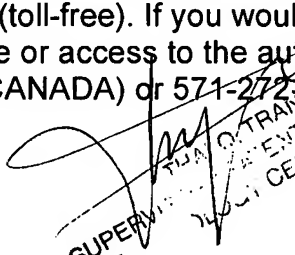
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing data of this action. In the event a first reply is filed within TWO MONTHS of the mailing data of this action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period. Then the shortened statutory period will expire on the data the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing data of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the data of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daquan Zhao whose telephone number is (571) 270-1119. The examiner can normally be reached on M-Fri. 7:30 -5, alt Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tran Thai Q, can be reached on (571)272-7382. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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